



## Pre service fine-arts teachers' disposition to use technology of painting-media for fine-arts instructions in South-West, Nigeria

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### ABSTRACT

Educational technology has influence the instructional processes with diverse resources within the reach of the learners. Painting is a core course in the Fine and Applied arts in Nigeria Colleges of Education. It is a perquisite course with modern and indigenous media for production but the painting-media are sometime posses' problem of usage resulting high failure among the pre service teachers. The study investigated the pre service fine-arts teachers' disposition to use technology of painting-media for fine-arts instructions in South-west Nigeria. The study was a descriptive of the cross sectional survey type, four questions and three Hypotheses were answered and tested. 350 Pre service fine arts teachers were drawn from colleges of education in South-west

Nigeria. The study used researcher's designed questionnaire named Pre Service Fine-Arts Teachers' Disposition to use Painting-media for Fine-Arts instruction (PSFATDUPMFAI). The instrument is subjected to face and content validated by experts and the reliability of the instrument yielded 0.83. It was concluded that Painting-media are sources of inspiration in teaching and learning because it improves the academic performance and promote active instructions with highly positive. It was further recommended that pre service Fine-arts teachers should be exposed to different Painting techniques and of different media.

**Keywords:** Fine arts, Gender, Painting-media, Pre Service Teacher, Teachers, Visual Arts.

## 1. INTRODUCTION

Teachers are imperative in development of learners, they are highly essential for implementing social change in individual students. The success of this implementation is lies on effectiveness of teachers and the curriculum (Muhammad & Sabeen, 2011). The Curriculum of Cultural and Creative Arts in the 9 years, grouped together different aspects of visual arts which include music, dance, drama, and the craft. The togetherness of these aspects is essential to produce artists of higher reputation that would foster interdisciplinary trait of the arts at large (Obioma, 2007). Visual Arts Curriculum on the Nigeria context of secondary school includes; Textile and Graphic Design, Drawing, sculpture, Painting and Crafts (Iriwieri, 2009). Whereas, both the creative and visual arts are together as a discipline in Fine-Arts in Colleges of Education in Nigeria education context. Otonye (2003) described Fine-Arts as a legacy that has the ability to preserve and promote ones cultural heritage globally. Zwi and Graham (2010) explicated that Fine-Arts fosters and developments aesthetic awareness and creativity in individual. Kalilu (2013) declared that Fine-Arts develop manpower for productivity and economic development; it encourages the utilisation of locally available materials within the environment. Also, upholds the culture of the nation. Arts should be mandatory for technological advancement that will compete with international standards, and economy.

### The Merit and Demerit of Fine Arts

The study of Unegbu (2014) confirmed that Fine-Arts is of paramount importance and its significance in clarifies joy and happiness that prolongs life which indicates that there is life in arts. To this view, fine arts have given prospects for individuals that need such. In the same vein, Soetan and Odewumi (2016) submitted that fine-arts is substantial as in cultural preservation, way of expression, beautification, and a method of acquiring a livelihood for learners at the completion of secondary school education. In essence, Odewumi (2015) submitted that fine-arts promotes in a child the creative ability of a great value to appreciate and teaches maintenance of tools, materials and equipment for all branches of Fine-Arts.

Despite the relevance of fine-arts to the students and the teachers in society, literature has itemised the challenges facing the teaching of Fine-Arts. For example, Archibong, (2012) presented the challenges as follows; inadequate teaching space to accommodate arts lesson. Poor allocated time for teaching. Lack of interest on the part of learners and administrators, community and parental. Also, shortage of relevant text materials and shortage of qualified teachers. In the same vein, the study of (Olurinola, 2016) revealed that lack of interest on the part of learners to Visual Arts, has contributed the setback on the subject at the Secondary School axis, because the scholars that enrolled for Visual Arts in summative examinations is very small in comparing with other subjects thus has effect on the numbers study fine-arts in the Colleges of Educations.

### Meaning of Painting

Painting a branch of Fine-Arts, which is prominent as a course of study in Colleges of Education and has the foundation from the cave arts. Literature has described painting in different perspective. For example Usman, Odewumi, Obotuke, Apolola and Ogunyinka (2014) expressed that painting is a great medium of expression that entails spreading of colours through flat medium on any surface. Odewumi (2015) articulated that painting is the application of colour pigments on canvas, papers, boards and walls with knife, brush and object which has the capability of spreading the pigments or inks evenly. Olanrewaju, (2005) expressed painting as a skilfulness of spread out pigments of colours and paints on any given surfaces of sketches and drawings to generate special effects. Ibrahim-Banjoko (2009) and Elin (2012) wind up that painting makes the objects covered with colours real and meaningful, through the creations of texture, depth and solidity. It is sure and there is no doubt, that a well painting object or objects always elicit people's attention.

Painting as a course in Colleges of Education is prerequisite in the first two years of study. Whereas, is optional and very few Pre-service teachers specialises in painting in the final year of their study. Researchers have established painting as educative

medium that are mostly utilises in conveying messages to the people. For example, the study of Hornbacher (2009) submit ted that painting processes the ability to give information and was utilised to spread vital information during Japan colonial era. Also, Peşkersoy and Yıldırım (2010) succumbed that painting is a medium of developing individual and improving creative talents through creations and exhibitions of ideas. The study of Tataroğlu (2013) established that paintings edify colour application and accepts the uniqueness in every child as a creative being. Sage and Min-Fu (2013) and Min (2013) expressed that painting as a medium of expression brings fantasy, aura and reality enveloped through experience.

### Significant of Painting

Paintings are done and interpret in diverse ways. For example, Marschoaiek (1983) explained that Marble painting provides scholastic knowledge acquisition through the interpretation of geometrical shapes and lines on the abstraction surfaces of the stone. Katz (2003) expressed that painting teaches and influences artistic perceptions; this reveals in the way individual responses through colour usage. Archibald (2012) publicised that painting is not only for education but it possessed a healing power, it magical and has the ability to creating mystery in colour perception that set students free from phobia. Yucel, (2012) précised that Painting displays both natural and artificial impulse that are of importance in guiding learners interrelations between arts and other disciplines.

Students utilised different Painting-media for their artistic creations. Studies have explained different Painting-media as of paramount to painting artistic skills. For example Odewumi (2015) explained that Painting-media are of substances usually called a pigment which has great influence on production of artistic works. He further grouped painting-media into dry, wet and mix-media. The dry media are of pencil, colour pencil, crayon and pastel. Also, the wet media are water and oil based pigments. The examples of oil based colours are oil paints packed in tubes, bottles and tins. The water based is postal colours in bottles and plastic containers of different sizes and emulsion. In essence Usman, Odewumi, Obotuke, Apolola and Ogunyinka, 2014 and Odewumi, Okeke, Abdulhammed, Uzoma, and Okuche (2015) presented the examples of mixed media to include the combinations of all Painting-media e.g. Charcoal, Pastels, Postal colours, Crayon, Oil Paints, and Ink together with small particles of dull and shinny objects for a specific artistic work. Whereas, computer is used to select, mix and apply colours via digital paintings.

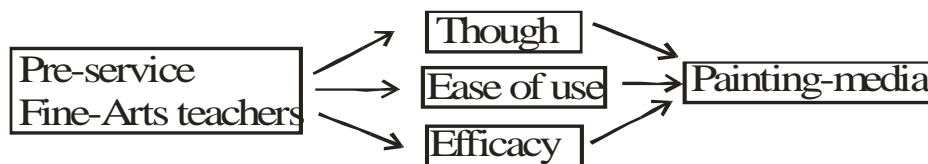
### Issues in Painting and Gender

On paintings and gender literature revealed that gender influences the painting of individual. For example, Kirk, Gallagher, Coleman and Anastasiow (2009) submitted that painting fosters effectiveness of communication between both female and male students. The authors further expressed that the painting promoted active relationship that encourages mutual cooperation in term of positive learning in the classroom. Painting encourages artistic trait of understanding for gender self-expression in achieving positive goals. It also, promotes gender differences in artistic productions (Odewumi, 2015). Paintings utilised learnt, acquire knowledge and skills that are product of experiences of individual behaviour

to pass information within the environment. Wright and Hinson (2009) opined that learning is believed as a process that fussed together cognitive, emotional and environment influence for acquiring changes in one's ultimate world. Ajzen (1985) explained that the behaviour, emerged from the attitude towards prediction of person's intentions and actions is of important in using a product.

However, ones ultimate attitudes toward achieving a goal can be in accepting or rejecting idea because it can either be learned or acquired (Al-Zaidiyeen, Mei & Fook, 2010). Also, Davis, Bagozzi and Warshaw (1989) described style as activities of intent which is associated with the theory of Technology Acceptance Model (TAM). It was based mainly upon ones response to agree to and use a system. The model gives vivid account of intent as a variable that influence users' and on the response of individual to specific goal (Agarwal & Karahanna, 2000; Sun & Giles, 2001; Chau & Hu, 2001; Hong, Thing, Wong & Tam, 2015).

Therefore, this study was raised and carried out to further substantiate the claim that seeks particularly to fill the gap and add to knowledge by proving with empirical evidences, that Pre-service teachers' disposition to use Painting-media for Fine-Arts instructions. Since the action and way of life stand to be the strongest move for the pre-service teachers use painting material or otherwise. Literature revealed that users decision on Information Technology is based on though ease to use and efficacy. For the purpose of this study, the conceptual framework in figure 1 was generated to guide the study.



**Figure 1** Adapted model for the study (Odewumi 2018).

## 1.2. Research Questions

The study raised and answered the following questions.

1. What are the Painting-media uses for painting instruction?
2. What is the difference in pre-service Fine-Arts teachers' disposition to use Painting-media for Fine-Arts instructions?
3. Will there be difference in pre-service Fine-Arts teachers' disposition to use Painting-media for Fine-Arts instructions based on institution.
4. Will there be difference in pre service Fine-Arts teachers' male and female disposition to use Painting-media for Fine- arts instructions.

## 1.3. Research Hypotheses

These null hypotheses were tested in the study.

1. There is no significance difference in pre service Fine-Arts teachers' disposition to use Painting-media for Fine-Arts instructions.
2. There is no significant difference between Federal and State Colleges of Education pre service Fine-Arts teachers' disposition to use Painting-media for Fine-Arts instructions.
3. There is no significant difference between the pre service male and female Fine-Arts teachers' disposition to use Painting-media for Fine-Arts instructions.

## 2. RESEARCH METHODOLOGY

This study employed descriptive research type to carry out this study. The population were from the pre-service Fine-Arts teachers of Federal and State Colleges of Education in South-west Nigeria. The selection was based on the following criteria; Colleges where Fine-Arts is major as a course of study for the past five years and accredited by National Commission for Colleges of Education (NCCE). Colleges with availability of painting studio, instructors and pre-service teachers are currently offering painting courses. Therefore, the sampled Federal Colleges of education are: College of Education Special, Oyo. Oyo State. Federal College of Education, Osiele, Abeokuta, Ogun State. Adeyemi College of Education, Ondo, Ondo State. Others State Colleges of Education are: College of Education Ikere, Ekiti State. Immanuel Alayande College of Education, Oyo, State. Osun State College of Education, Ilesa and Ila Orangun. The population sampled were 350 pre service fine arts teachers selected using stratified random sampling technique out of which 174 were females and 176 males.

The research instrument used for this study was a researcher's designed questionnaire named Pre-service Fine-Arts Teachers' Disposition to Use Painting-media for Fine-Arts instruction (PSFATDUPMFAI). This questionnaire was eclectic, as its consisted of diverse ideas from the faculty members in the Department of Curriculum Instructional and Educational Technology, University of Benin. Department of Educational Technology, University of Ilorin, department of Fine and Applied arts Kwara State College of Education. Ilorin. As well as ideas and useful hints from related literature. More so, based upon their relevance towards intent to use Painting-media for Fine-Arts instruction in South-west, Nigeria Colleges of Education. The questionnaire consists of two sections: Sections A and B. Section A was used to elicit the Painting-media normally use for assignment. Section B sought for students' intent to use Painting-media for learning and instruction. There were 10 items numbered 1 - 10 and patterned after the five points Likert-like type rating scale format of Strongly Agree (SA) 5 points, Agree (A) 4 points, Disagree (D) 3 points, Strongly Disagree (SD) 2 points and Undecided (UD) 1 point

For the face and content validity of the research instruments, the instrument was given to a lecturer in the Department of Science Educational, Kwara State University, Malete. Ilorin. Department Educational Technology and Library Studies Obafemi Awolowo University, Ile-Ife. Department of Test, Measurement and Evaluation of both Universities of Ilorin and Obafemi Awolowo Ile Ife. Based on their comments and suggestions the final draft was made. Moreover, for reliability of the instrument, it was administered on pre service Fine-Arts students of Kwara State College of Education Ilorin, Nigeria, which is not inclusive in part of the colleges use for this study. Cronbach's alpha was used for the reliability to determine the major variable and this revealed a coefficient of 0.83 which is quite suitable for the study. The data obtained through the research instrument were analysed using the ANOVA and t-test all at 0.05 level of significance.

## 3. PRESENTATION DATA ANALYSIS AND DISCUSSION

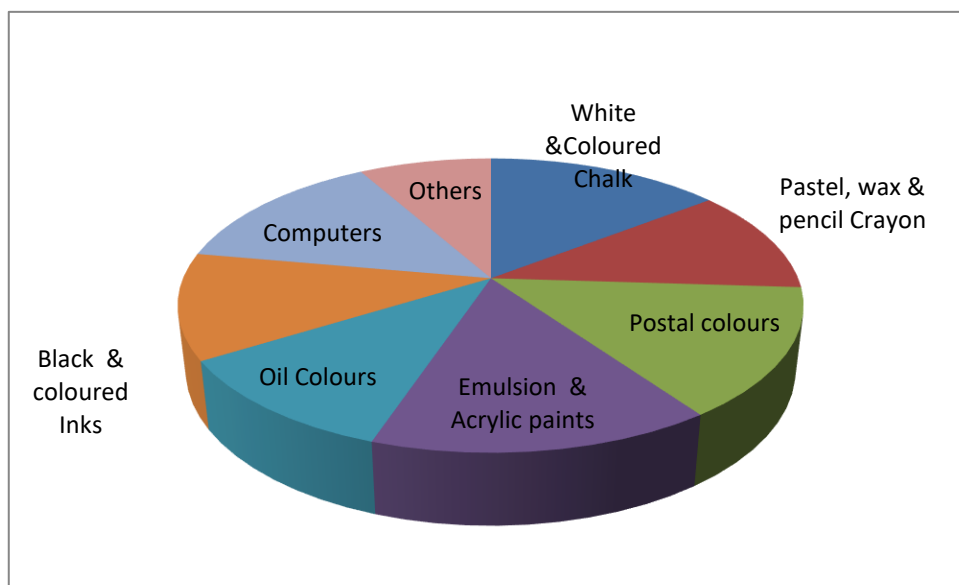
Research Question 1: What is the Painting-media used for Fine-Arts instruction?

The painting-media used for Fine-arts instructions are as follows

**Table 1** The type of Painting-media used for Fine-Arts instructions

S/N	ITEMS	SA%	A%	D%	SD%	MEAN VALUE
1.	White and Coloured Chalk	65.01	24.20	04.90	5.80	3.09
2.	Pastel, wax and pencil Crayon	50.60	25.50	18.20	5.60	2.44
3.	Postal colours	48.20	33.10	12.40	06.40	3.02
4.	Emulsion and Acrylic paints	61.40	31.60	5.50	1.40	3.19
5.	Oil Colours	88.40	27.80	11.40	05.00	2.34
6.	Black and coloured Inks	44.10	33.20	18.40	04.40	2.48
7.	Computers	49.20	30.10	11.90	08.80	2.98
8	Others	49.80	23.10	26.70	0.50	1.74
Grand Mean						26.6

Table 1 explained fully the Painting-media used for Fine-arts instructions by the pre service Fine-arts teachers in the sequence order as follows. The White and Colour Chalk was the first item reflecting the mean score of 3.09 which the pre service teachers use for Painting-media. Second on the item with the mean 2.44 was Pastel, Wax, and Pencil Crayon. While, the third item Postal colours having the mean score value of 3.2. Also, the fourth item which was Emulsion and Acrylic paint with the mean 3.19. The fifth item of Oil colour having the mean value of 2.34. Whereas, the sixth item of Black and Colour Inks having the value mean of 2.48. Second to the last item was the item seven, which was of Computer set that show the mean value of 2.98. In essence, the eight items on the table, that is others Painting-media used with the mean value of 1.70. From the table above one can reasoned along that all pre service Fine-Arts teachers utilised Painting-media for Fine-Arts. Instruction, therefore the grand mean value of 26.6 further represented in pie chart (Figure 2).

**Figure 2** Pie chart showing type of Painting-media used for Fine-Arts instructions

### Testing of hypothesis

Hypothesis 1: There is no significant difference in pre service Fine-arts teachers' disposition to use Painting-media for Fine-Arts instructions.

The hypothesis is tested in the table 2, below.

**Table 2** ANOVA statistics on pre service Fine-Arts teachers' disposition to use Painting-media for Arts Instructions

Source	Type III sum of Square	df	Means square	F	Sig
Corrected model	361.938	8	45.242	1.338	.224
Intercept	299018.082	1	299018.082	8844.481	.000
Factor	361.938	8	45.242	1.338	.224
Error	10345.382	306	33.808		
Total	500550.000	315			
Corrected total	51689.554	314			

Table 2 indicates calculated F-value of 33.808 not significant. This is because the significant value of .224 is bigger than 0.05 alpha levels. The result implies that there is significant difference between the pre service Fine-Arts teachers disposition to use Painting-media for Fine-Arts instructions Therefore, the null hypothesis is not accepted.

Hypothesis 2: There is no significant difference between Federal and State Colleges of Education pre service Fine-Arts teachers' disposition to use Painting-media for Arts instructions.

The hypothesis is tested in the table 3, below.

**Table 3** t-test of Federal and State pre service Fine-Arts teachers' disposition to use Painting-media for Arts instructions

Variables	No	Means	SD	df	t-value	sig.(2tailed)
Federal	105	30.41	6.08	313	-874	.383
State	210	31.02	5.71			

Table 3 indicates that the calculated  $t(313) = -8.74$ ,  $p=.383$ . The result implies that there is a significant difference in mean scores of both federal and state pre service fine-arts teachers' disposition to use Painting-media for Fine-Arts instructions. Therefore, the null hypothesis is rejected. To ascertain where the significant difference lies, the means of the pre service Fine-Arts teachers' in the state and federal colleges of education were compared in that the state colleges of education pre service fine-arts teachers were 37.00 which was greater than their federal counterparts of 34.30.

Hypothesis 3: There is no significance difference between male and female Pre Service Fine-Arts Teachers' disposition to use Painting-media for Fine-Arts instructions

The hypothesis is tested and reported in the table 4 below.

**Table 4** t-test of male and female Pre Service Fine-Arts Teachers' disposition to use Painting-media for Fine Arts instructions

Variables	No	Means	SD	df	t-value	sig. (2tailed)
Male	157	30.55	5.99	313	.812	.419
Female	158	31.08	5.70			

Table 4, indicates calculated  $t(313) = .812$ ,  $p=.419$ . The result implies that there is a significant difference in mean scores of both male and female pre service fine-arts teachers' disposition to use Painting-media for Fine-Arts instruction. Therefore, the null hypothesis is not accepted. This implies that the mean of the female pre service fine-arts teachers with 31.08 though slightly greater than that of their male counterparts of 30.55, still, it was significant.

#### 4. DISCUSSIONS

The result on hypothesis 1 indicated that there is no significant difference in the pre service teachers of Fine-arts in the Colleges of Education in South-west disposition to use Painting-media for arts instructions. The result of hypothesis 2 implies that there is

significant difference in mean scores of both federal and state of colleges of education fine-arts students' disposition to use Painting-media for arts instructions. Also, the result of hypothesis 3 showed a significant difference in mean scores of both male and female pre service teachers' disposition to use Painting-media for arts instructions.

The results of hypotheses 2 and 3 as shown on tables 2 and 3 showed significant differences, these were indicated in their mean scores on the use of Painting media in fine-arts at 0.05 alpha levels. It can be deduced from the results of the two hypotheses that using Painting-media did produce significant differences in the mean scores on the pre service teachers' of Fine-Arts. It reveals that if users believe that using Painting-media would enhance performances, they are more intent to use it.

The study revealed that comportment was an important factor when it comes to the use of equipment for teaching. This finding was in agreement with the findings of Selwyn (1999) and David (2013) whose findings stressed the integration of information technology in an educational environment. That it will largely depend on students as well as teachers attitude towards usage. The findings also support the findings of Lee, (1997) who reported that user attitude and stance was a precondition for future use of technology. In furtherance to that, Yuen and Ma (2002) reported similar finding which supports the present study on the influence of behavioural belief and intention as a significant factor to an integration of technology in instruction. Similarly, this study also confirms the finding of Ajzen and Fishbein (1980) that stressed the reasons for an individual's behavioural intention as a function of their belief as well as attitude toward such situation.

However, the findings of this study disagreed with that of Yuan and Ma (2009) and that of Teo (2008) in their findings which stated that successful information system use for classroom instruction depend solely on user's behavioural belief as well as attitude develop toward information system. In any case, the results of this study have proved that painting branch of Fine-arts could be taught and learned better with dry, wet and mixed media.

In addition, different Painting-media influence satisfaction seen in playfulness, facilitate conditions and have positive impacts on perceived usefulness of painting. These results indicate that if a painter suggests that the Painting-media is useful, painter enjoys using it and facilitates conditions to satisfy their needs. Thus, painter believes that Painting-media is useful and develop more intention to use it.

## 5. CONCLUSION

It is concluded in this study that Painting-media are sources of inspiration in teaching and learning of Painting in Colleges of Education. This is because it improves the academic performance of pre service Fine-Arts teachers and enhances effective instructional delivery of lecturers as well. Therefore, Painting-media should not be left out in the use in colleges of education painting courses. It is classified along the technological advancement of innovation in instructions that improve, enhance, and promote academic works of the pre service Fine-Arts that is would be teachers. To this effect in this study, South-west Colleges of Education Fine-arts students' disposition to use Painting-media for Arts instructions was highly positive.

## RECOMMENDATIONS

1. Based on the major findings of this study, the following recommendations are made. Painting Specialist instructors need to be exposed the pre service Fine-arts teachers to various Painting techniques and media. Also, the pre service teachers should be encouraged to be using series of Painting-media for fine-arts assignment, this would assist the pre service teachers to become very versatile with the ease of use and widen their painting potentials.
2. This will impact on them greatly and their intent to continually use the Painting-media will be highly sustained.
3. That the management of the pre service fine arts teachers scheme should promote painting techniques in various ways, this can be done through painting competition and exhibition well organised and rewards for performances, it would fosters understanding among pre service Fine-Arts teachers, lecturers and authorities. In essence, it will enhances better performance of pre service Fine-Arts teachers in painting and related courses.

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